

AMENDMENTS TO CLAIMS

Please amend the claims as indicated hereinafter.

1. (Currently Amended) A method of managing a network entity that is initiated by the network entity, the method comprising ~~the computer-implemented steps performed at the network entity of:~~

performing, at the network entity, the computer-implemented steps of:

monitoring the network entity;

periodically evaluating one or more specified conditions at the ~~managed~~-network entity;

when one or more of the specified conditions are satisfied, then;

gathering specified information from the ~~managed~~-network entity;

preparing a message that includes the specified information and the specified conditions that were satisfied; and

sending the message to ~~a one of a management point~~an application or a management proxy.

2. (Currently Amended) A method of managing a network entity that is initiated by the network entity, the method comprising ~~the computer-implemented steps of:~~

performing, at a management proxy, the computer-implemented steps of:

receiving a request from a management application for interaction with the ~~managed~~-network entity;

creating a management request that includes a network element identifier;

storing a management request in ~~a~~the management proxy while awaiting a poll for the management request from the ~~managed~~-network entity;

receiving a ~~periodic~~-poll message from the ~~managed~~-network entity, wherein ~~the~~ each poll message requests any available management requests applicable to the ~~managed~~-network entity;

in response to the poll message;

selecting one or more management requests that match the ~~managed~~
network entity; and
delivering the selected one or more management requests to the ~~managed~~
network entity;

wherein the management proxy is external to the management application and the
network entity.

3. (Currently Amended) A method as recited in Claim 2, further comprising ~~the steps~~
of performing, at the management proxy:

receiving a responsive management message from the ~~managed~~-network entity;
storing the responsive management message in the management proxy;
receiving a second poll message from the management application, wherein the second
poll message requests any responsive management messages applicable to the
management application;

in response to the second poll message:

selecting one or more responsive management messages that match the
management application; and
delivering the selected one or more responsive management messages to the
management application.

4. (Currently Amended) A method as recited in any of Claims 1 or 2, wherein the network
entity is within a private network that is managed by a network service provider, and wherein the
management ~~point-proxy and the management application is-are~~ within a public network that is
owned or operated by the network service provider.

5. (Original) A method as recited in any of Claims 1 or 2, wherein the network entity is a
service appliance.

6. (Original) A method as recited in any of Claims 1 or 2, wherein the network entity is a
switch or router.

7-27. (Canceled)

28. (Currently Amended) A method for a network element to initiate notification to a management point about an anomalous condition, comprising the computer-implemented steps of:

at the network element or a proxy server, performing the computer-implemented steps of:

receiving first definitions of one or more triggers, each comprising one or more conditions;

receiving second definitions of report information;

determining that any of the triggers is satisfied, and in response thereto, initiating

at the network element communication of at least some of the report information to a management proxy or a management application.

29. (Original) A method as recited in Claim 28, wherein each of the conditions comprises an event, alarm, combination of events or alarms, or pattern of events or alarms.

30. (Original) A method as recited in Claim 28, wherein each of the conditions comprises a state of the network element.

31. (Original) A method as recited in Claim 28, wherein the report information describes any of the triggers that were determined as satisfied.

32. (Original) A method as recited in Claim 28, wherein the report information comprises any of a core dump from the network element, a configuration of the network element, state information for the network element, or a log of the network element.

33. (Currently Amended) A method as recited in Claim 28, wherein the steps are performed by a the proxy server that, wherein the proxy server is logically separate from the network element, wherein the proxy server manages notifications for a plurality of network elements.

34. (Original) A method for a network element to initiate notification to a management point about an anomalous condition, comprising the computer-implemented steps of:

requesting a management gateway that is communicatively coupled to the network element to provide one or more application requests for the network element that have been stored at the management gateway by an application;

in response to receiving an application request, initiating at the network element a communication session between the network element and the management application for enabling the network element to reply to the application request.

35. (Original) A method as recited in Claim 34, wherein the steps are performed by a server that is logically separate from the network element and communicatively coupled to the management gateway.

36. (Original) A method as recited in Claim 34, further comprising the step of initiating at the network element communication of at least some of the report information that is responsive to the application request.

37. (Original) A method as recited in Claim 34, wherein each of the application requests comprises first definitions of one or more triggers, each comprising one or more conditions, and second definitions of report information; and further comprising the step of determining that any of the triggers is satisfied, and in response thereto, initiating at the network element communication of at least some of the report information.

38. (Original) A method as recited in Claim 37, wherein each of the conditions comprises an event, alarm, combination of events or alarms, or pattern of events or alarms.

39. (Original) A method as recited in Claim 37, wherein each of the conditions comprises a state of the network element.

40. (Original) A method as recited in Claim 37, wherein the report information describes any of the triggers that were determined as satisfied.

41. (Original) A method as recited in Claim 37, wherein the report information comprises any of a core dump from the network element, a configuration of the network element, state information for the network element, or a log of the network element.

42. (New) A computer-readable storage medium storing one or more instructions for self-initiated management of a network entity, wherein the one or more instructions, when executed by one or more processors, cause:

performing, at the network entity, the computer-implemented steps of:

monitoring the network entity;
periodically evaluating one or more specified conditions at the network entity;
when one or more of the specified conditions are satisfied, then:
 gathering specified information from the network entity;
 preparing a message that includes the specified information and the
 specified conditions that were satisfied; and
 sending the message to one of a management application or a management
 proxy.

43. (New) A computer-readable storage medium storing one or more instructions for self-initiated management of a network entity, wherein the one or more instructions, when executed by one or more processors, cause:

 performing, at a management proxy, the computer-implemented steps of:

 receiving a request from a management application for interaction with the
 network entity;
 creating a management request that includes a network element identifier;
 storing a management request in the management proxy while awaiting a poll for
 the management request from the network entity;
 receiving a poll message from the network entity, wherein each poll message
 requests any available management requests applicable to the network
 entity;
 in response to the poll message:
 selecting one or more management requests that match the network entity;
 and
 delivering the selected one or more management requests to the network
 entity;

 wherein the management proxy is external to the management application and the
 network entity.

44. (New) The computer-readable storage medium as recited in Claim 43, further comprising one or more instructions that, when executed by one or more processors, cause the management proxy to perform the steps of:

receiving a responsive management message from the network entity;
storing the responsive management message in the management proxy;
receiving a second poll message from the management application, wherein the second poll message requests any responsive management messages applicable to the management application;
in response to the second poll message:
 selecting one or more responsive management messages that match the management application; and
 delivering the selected one or more responsive management messages to the management application.

45. (New) The computer-readable storage medium as recited in any of Claims 42 or 43, wherein the network entity is within a private network that is managed by a network service provider, and wherein the management proxy and the management application are within a public network that is owned or operated by the network service provider.

46. (New) The computer-readable storage medium as recited in any of Claims 42 or 43, wherein the network entity is a service appliance.

47. (New) The computer-readable storage medium as recited in any of Claims 42 or 43, wherein the network entity is a switch or router.

48. (New) A computer-readable storage medium storing one or more instructions for a network element to initiate notification about an anomalous condition, wherein the one or more instructions, when executed by one or more processors, cause:

 at the network element or a proxy server, performing the computer-implemented steps of:
 receiving first definitions of one or more triggers, each comprising one or more conditions;
 receiving second definitions of report information;
 determining that any of the triggers is satisfied, and in response thereto, initiating communication of at least some of the report information to a management proxy or a management application.

49. (New) The computer-readable storage medium as recited in Claim 48, wherein each of the conditions comprises an event, alarm, combination of events or alarms, or pattern of events or alarms.
50. (New) The computer-readable storage medium as recited in Claim 48, wherein each of the conditions comprises a state of the network element.
51. (New) The computer-readable storage medium as recited in Claim 48, wherein the report information describes any of the triggers that were determined as satisfied.
52. (New) The computer-readable storage medium as recited in Claim 48, wherein the report information comprises any of a core dump from the network element, a configuration of the network element, state information for the network element, or a log of the network element.
53. (New) The computer-readable storage medium as recited in Claim 48, wherein the one or more instructions, when executed by one or more processors, cause the steps to be performed by the proxy server, wherein the proxy server is logically separate from the network element, wherein the proxy server manages notifications for a plurality of network elements.
54. (New) A computer-readable storage medium storing one or more instructions for a network element to initiate notification to a management point about an anomalous condition, wherein the one or more instructions, when executed by one or more processors, cause:
 requesting a management gateway that is communicatively coupled to the network
 element to provide one or more application requests for the network element that
 have been stored at the management gateway by an application;
 in response to receiving an application request, initiating at the network element a
 communication session between the network element and the management
 application for enabling the network element to reply to the application request.
55. (New) The computer-readable storage medium as recited in Claim 54, wherein the one or more instructions, when executed by one or more processors, cause the steps to be performed by a server that is logically separate from the network element and communicatively coupled to the management gateway.

56. (New) The computer-readable storage medium as recited in Claim 54, wherein the one or more instructions, when executed by one or more processors, further cause initiating at the network element communication of at least some of the report information that is responsive to the application request.
57. (New) The computer-readable storage medium as recited in Claim 54, wherein each of the application requests comprises first definitions of one or more triggers, each comprising one or more conditions, and second definitions of report information; and further comprising the step of determining that any of the triggers is satisfied, and in response thereto, initiating at the network element communication of at least some of the report information.
58. (New) The computer-readable storage medium as recited in Claim 57, wherein each of the conditions comprises an event, alarm, combination of events or alarms, or pattern of events or alarms.
59. (New) The computer-readable storage medium as recited in Claim 57, wherein each of the conditions comprises a state of the network element.
60. (New) The computer-readable storage medium as recited in Claim 57, wherein the report information describes any of the triggers that were determined as satisfied.
61. (New) The computer-readable storage medium as recited in Claim 57, wherein the report information comprises any of a core dump from the network element, a configuration of the network element, state information for the network element, or a log of the network element.